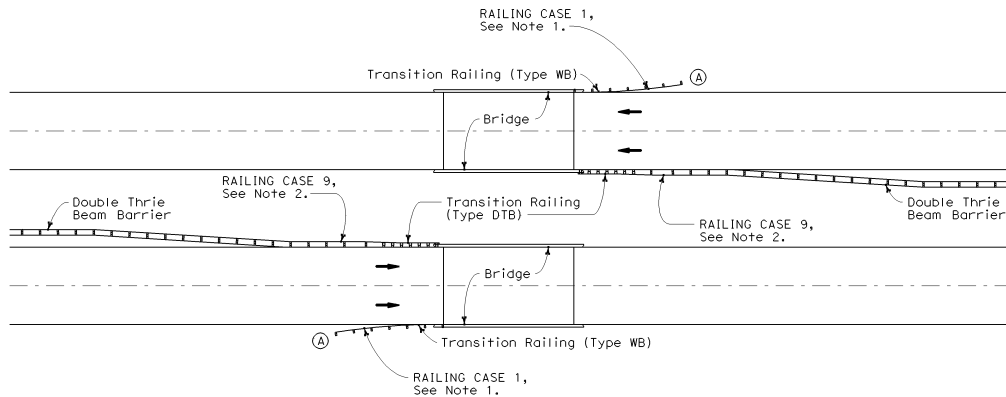
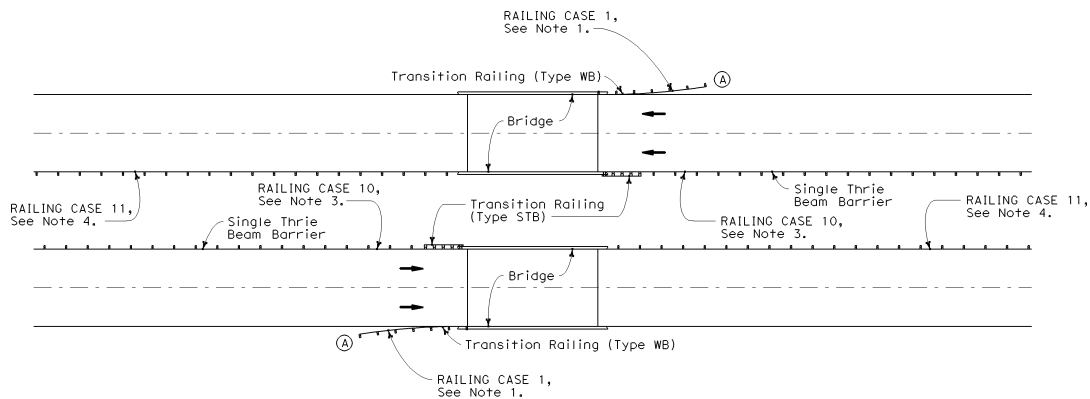


GUARD RAILING AND METAL BARRIER RAILING AT STRUCTURE APPROACHES AND DEPARTURES

See Notes 5 and 6



"DIAGRAM 9"
MULTILANE HIGHWAY WITH SEPARATE STRUCTURE
FOR EACH DIRECTION OF TRAVEL



"DIAGRAM 10"
MULTILANE HIGHWAY WITH SEPARATE STRUCTURE
FOR EACH DIRECTION OF TRAVEL



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET TOTAL NO. SHEETS
Ellis K. Hirst REGISTERED CIVIL ENGINEER July 1, 2004 PLANS APPROVAL DATE The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet. To get to the Caltrans web site, go to: http://www.dot.ca.gov				



NOTES:

- Where guard railing is constructed to shield the ends of structures for the conditions shown in RAILING CASE 1 on DIAGRAM Nos. 9 and 10, Layout Types 12A or 12B shown on Standard Plan A77F1 or Layout Type 12C shown on Standard Plan A77F2 are typically used.
- Where double thrie beam barrier railing is constructed to shield the ends of structures for the conditions shown in RAILING CASE 9 on DIAGRAM No. 9, Type 25A Connection Layout shown on Standard Plan A78H is typically used. For bridge railing connection details, see Standard Plans A78F1 and A78K.
- Where single thrie beam barrier railing is constructed to shield the ends of structures for the conditions shown in RAILING CASE 10 on DIAGRAM No. 10, Type 25A Connection Layout shown on Standard Plan A78H is typically used. For bridge railing connection details, see Standard Plan A78J. Connection Detail 2A shown on Standard Plan A78F2 applies to the bridge railing connection.
- Where single thrie beam barrier railing is constructed to shield opposing directions of traffic as shown in RAILING CASE 11 on DIAGRAM No. 10, Connection Detail 3A shown on Standard Plan A78F2 applies to the bridge railing connection.
- See Standard Plan A77D1 for additional guard railing at structure placement diagrams.
- These diagrams are not intended to provide geometric design standard guidance. See the Highway Design Manual for this type of guidance.

LEGEND

- (A) Caltrans approved end treatment or buried post end anchor.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING AND THRIE BEAM BARRIER RAILING AT STRUCTURES (PLACEMENT DIAGRAMS)

NO SCALE

ALL DIMENSIONS ARE IN
MILLIMETERS UNLESS OTHERWISE SHOWN

A77D2

2004 Std Plan A77D2